#### Severe Weather



## **Severe Thunderstorm Safety**



Thunderstorms are dangerous because they include lightning, high winds, heavy rain that can cause flash floods, and tornadoes. By definition, a thunderstorm is a rain shower that contains lightning. A typical severe storm can be 15 miles in diameter and last an average of 30 to 60 minutes. Every thunderstorm produces lightning, which usually kills more people each year than tornadoes.

A severe thunderstorm is a thunderstorm that contains large hail, 1 inch in diameter or larger, and/or damaging straight-line winds of 58 mph or greater (50 nautical mph). Rain cooled air descending from a severe thunderstorms can move at speeds in excess of 100 mph. This is what is called "straight-line" wind gusts. There was 1 death and 3 injuries from thunderstorm wind gusts in Missouri in 2015, with 0 deaths and injuries from tornadoes. A downburst is a sudden out-rush of this wind. Strong downbursts can produce extensive damage which is often similar to damage produced by a small tornado. A downburst can easily overturn a mobile home, tear roofs off houses and topple trees.

Severe thunderstorms can produce hail the size of a quarter (1 inch) or larger. Quartersize hail can cause significant damage to cars, roofs, and can break windows. Softballsize hail can fall at speeds faster than 100 mph.

## **Thunderstorm Safety**

Avoid traveling in a severe thunderstorm – delay your travel plans until the storms pass or get off the road and seek shelter in a building.

When a severe thunderstorm threatens, follow the same safety rules you do if a tornado threatens. Go to a basement if available. If not, go to the lowest level of the building and move to a small interior room or hallway. Stay away from doors and windows. If time permits move your vehicle into a garage or carport to help prevent damage.

## **Lightning Safety**

Missouri <u>had 2 deaths</u> as a result of lightning strikes in 2015. At any given moment, there are 1,800 thunderstorms in progress somewhere on Earth. This amounts to 16 million storms a year! In the United States, there are an estimated 25 million cloud-to-ground lightning flashes each year. While lightning can be fascinating to watch, it is also extremely dangerous.

According to statistics kept by the National Weather Service, the 30 year average for lightning fatalities across the country is 73. Lightning usually claims only one or two victims at a time, and because lightning does not cause mass destruction, such as from a tornado event or a hurricane, lightning generally receives much less attention than the more destructive storm-related events. Due to under reporting, it is estimated that, more realistically, about 100 - 120 deaths per year occur because of lightning. Documented lightning injuries in the United States average 300 per year; however undocumented lightning injuries are likely much higher.

#### **Outdoors**

Remember, lightning can strike up to 10 miles from the rain area. Go quickly inside a completely enclosed building before the storm arrives. A hard topped all metal-vehicle provides good protection.

# There is really no safe place to go if you are outdoors. You must move to a building or an enclosed vehicle.

Get out of the water, off the beach, and out of small boats or canoes.

Do not use metal objects such as golf clubs, metal bats, fishing rods, or metal tools.

Get off of heavy metal equipment such as tractors or construction equipment.

### Indoors

Stay there! The best protection from lightning is a house or other substantial building. However, stay away from windows, doors, and metal pipes.

Do not use electric appliances during the storm. Turn off sensitive equipment such as televisions and computers.

Telephone use is the leading cause of indoor lightning injuries in the United States. Do not make a call unless it is an emergency.